

Application No. 09/714,973
Amendment "A" dated June 28, 2004
Reply to Office Action mailed March 26, 2004

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for delivering enhanced programming content to a receiver, the receiver being configured to display the enhanced programming content, the method comprising:

a step for creating a schema document, the schema document comprising ~~at least one of (i) a trigger data structure, (ii) an announcement data structure, and (iii) a package data structure defining enhanced programming content, (iv) a timeline data structure, and (v) a carousel data structure;~~

a step for accessing the schema document, the schema document comprising at least one instruction regarding timing for the delivery of enhanced programming content;

a step for analyzing the at least one instruction to retrieve ~~the~~ a timeline data structure, the timeline data structure comprising an events specifying particular times during a particular period of time for delivery of each one of the trigger data structure, the announcement data structure, and the package data structure controlling the delivery of the enhanced programming content to the receiver; and

a step for delivering each one of the trigger data structure, the announcement data structure, and the package data structure the enhanced programming content to the receiver when the event occurs as specified by the timeline data structure.

2. (Original) A method as recited in claim 1, further comprising:

- (a) a step for viewing television programming deliverable to the receiver; and
- (b) in response to viewing the television programming, a step for creating the schema document associated with the television programming.

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3. (Original) A method as recited in claim 1, wherein the step for accessing the schema document comprises the step of retrieving the schema document from a repository containing a plurality of schema documents.

4. (Original) A method as recited in claim 1, wherein the step for creating the schema document comprises a step for creating the schema document with an authoring tool.

5. (Original) A method as recited in claim 1, wherein the enhanced programming content comprises at least one of an announcement element, a trigger element, and a package element.

6. (Original) A method as recited in claim 1, wherein the delivering step comprises delivering the enhanced programming content in an order selected from the group consisting of a sequential order and an asynchronous order.

7. (Original) A method as recited in claim 1, wherein the delivering step comprises synchronizing the enhanced programming content with the television programming.

8. (Original) A method as recited in claim 1, wherein the delivering step comprises delivering the enhanced programming content with a communication protocol.

9. (Original) A method as recited in claim 8, wherein the communication protocol is selected from the group consisting of (i) a transport A protocol and (ii) a transport B protocol.

10. (Original) A method as recited in claim 1, wherein the delivering step comprises delivering the enhanced programming content before a deliver-by time, defined in the schema document.

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11. (Original) A method as recited in claim 1, wherein the delivering step comprises delivering the enhanced programming content by a start time defined in the schema document.

A2 12. (Currently Amended) A method as recited in claim 1, wherein the timeline data structure functions as ~~the~~ a carousel data structure.

13. (Currently Amended) A method as recited in claim ~~1~~12, wherein the carousel data structure ~~functions as the timeline data structure~~ specifies that the trigger data structure, the announcement data structure, and the package data structure should be delivered as fast as possible.

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14. (Currently Amended) A method as recited in claim 1, wherein the delivery step comprises:

(c)a step for delivering an announcement signal comprising the announcement data structure to the receiver, the announcement signal identifying the availability of enhanced programming content to the receiver;

(d)a step for delivering a package comprising the package data structure to the receiver, the package identifying the enhanced programming content;

(e)a step for delivering a trigger signal comprising the trigger data structure to the receiver, the receiver notifying the viewer of the availability of enhanced programming content; and

(f)in response to a selection by the viewer to receive the enhanced programming content, a step for displaying the enhanced programming content to the viewer.

15. (Original) A method as recited in claim 14, wherein the package comprises at least one file containing the enhanced programming content.

16. (Original) A method as recited in claim 14, wherein the package comprises at least one link to the enhanced programming content.

17. (Original) A method as recited in claim 14, wherein the trigger comprises at least one link to the enhanced programming content identified in the package.

18. (Original) A method as recited in claim 14, wherein the at least one user action comprises the step of accepting a notification displayed to the viewer of the availability of enhanced programming content.

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19. (Currently Amended) A computer-readable medium having a plurality of data fields stored on the medium and representing data structures for delivering enhanced programming content to a receiver, comprising:

(g) a first data field containing data representing the availability of enhanced programming content;

(h) a second data field containing data representing the location of the enhanced programming content;

(i) a third data field containing data representing at least one trigger, the at least one trigger controlling the delivery of the enhanced programming content; and

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(j) a fourth data field containing data representing a timeline, the timeline specifying particular times during a particular period of time for delivery of each one of the controlling the delivery of the first data field, the second data field, and the third data field to the receiver.

20. (Original) A computer-readable medium as recited in claim 19, wherein the first data field comprises an announcement, the announcement comprising an announcement data structure.

21. (Original) A computer-readable medium as recited in claim 19, wherein the second data field comprises a package, the package comprising a package data structure.

22. (Original) A computer-readable medium as recited in claim 21, wherein the package comprises at least one of (i) a file of enhanced programming content and (ii) a link to a file of enhanced programming content.

23. (Original) A computer-readable medium as recited in claim 19, wherein the third data field comprises a trigger, the trigger comprising a trigger data structure.

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24. (Original) A computer-readable medium as recited in claim 19, wherein the timeline controls at least one of (i) a starting time for delivering the enhanced programming content to the receiver and (ii) a stopping time for delivering the enhanced programming content to the receiver.

25. (Original) A computer-readable medium as recited in claim 19, wherein the timeline comprises a time, the time defining when delivery of the enhanced programming content to the receiver is to be completed.

Q2 26. (Original) A computer-readable medium as recited in claim 19, wherein the timeline acts as a carousel.

27-29 (Cancelled)

30. (Currently Amended) A method as recited in claim 27~~1~~, wherein the document comprises an XML document.

31. (Cancelled)

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32. (Currently Amended) A system for providing television programming and enhanced programming content that is capable of being displayed on a variety of receivers, the system comprising:

Q2 (e) an interactive module configured to create at least one schema document, the schema document being configured to define the enhanced programming content in a standardized configuration, the schema document comprising ~~at least one of (i) a trigger data structure, (ii) an announcement data structure, (iii) a package data structure, (iv) and~~ a timeline data structure, the timeline data structure specifying particular times during a particular period of time for delivery of each one of the trigger data structure, the announcement data structure, and the package data structure to at least one of the variety of receivers and (v) a carousel data structure;

(f) an encoder module, in communication with the interactive module, configured to encode the enhanced programming content, in response to the configuration of the timeline data structure, onto a communication line containing the television programming; and

(g) a receiver module, in communication with the encoder module, for receiving the enhanced programming content and displaying the enhanced programming content to a viewer.

33. (Currently Amended) A system as recited in claim 32, wherein the interactive module comprises:

(h) a data storage module configured to store the at least one schema document; and

(i) an application module configured to retrieve the at least one schema document and the enhanced programming content defined in the at least one schema document.

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34. (Currently Amended) A system as recited in claim 32, wherein the interactive module comprises:

(p)an interface module configured to receive requests for modifications to the schema document;

(q)a stream module configured to modify the schema document following the requests received by the interface module; and

(r)a send module configured to manipulate the schema document and the enhanced programming content for delivery to the receiver.

35. (Currently Amended) A system as recited in claim 32, wherein the interactive module comprises:

(s)an interface module configured to receive requests to generate a schema document, the schema document defining the enhanced programming content deliverable with the television programming;

(t)a stream module configured to generate the schema document in response to the requests received by the interface module; and

(u)a send module configured to deliver the enhanced programming content to the receiver module.

36. (Original) A system as recited in claim 32, wherein the communication line comprises a plurality of different channels.

37. (Original) A system as recited in claim 36, wherein the communication line comprises a first channel configured to transport the television programming to the receiver and a second channel configured to transport the enhanced programming to the receiver, the first channel and the second channel being different channels.

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38. (Currently Amended) A computer program product for implementing a method for providing enhanced programming content defined within a schema document to a viewer of a receiver module, comprising:

a computer readable medium carrying computer-executable instructions for implementing the method ~~where the computer-executable instructions comprise:~~

~~a step for retrieving a schema document, the schema document comprising at least one instruction for the delivery of enhanced programming content;~~

~~a step for analyzing the at least one instruction to retrieve a timeline for the deliver of the enhanced programming content to the receiver; and~~

~~in response to the timeline, a step for delivering the enhanced programming content to the receiver for display to the viewer recited in claim 1.~~

39. (Cancelled).